

## Halobates in Hawaii (Hemiptera).

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The only insects to defy the terrors of Neptune living about Hawaii, or, with a few exceptions, to be found anywhere in the world, belong to the genus *Halobates*. These pelagic Heteroptera belong to the family Hydrometridae or water striders, and are characterized by a pubescent oval body; triangular head; four-jointed antennae; short, stout front legs; long, slender middle and hind-legs, which are inserted at the sides of the posterior end of the thorax; a very small abdomen, and an entire absence of wings.

Of the fifteen or more species of *Halobates* known, eleven are carefully described and figured in an excellent monograph by F. Buchanan White, in the Report of the Voyage of H. M. S. Challenger, Zoology, Vol. VII, pt. 19, pp. 1-82, with three plates. Using this, Dr. Illingworth and I were able to determine the identity of the specimens in the Bishop Museum collection.

*Halobates wüllerstorffi* Frauenfeld was brought back from Palmyra in July, 1913, as recorded by Mr. Swezey (Proc. Haw. Ent. Soc., III, p. 16, 1913). This species is common to the North and South Atlantic, Indian, and Western Pacific Oceans, but was apparently unknown previously from the East Pacific.

*Halobates sericeus* Eschscholtz is the common species captured at Waikiki, especially after Kona storms. It has been recorded by Osborn and Pemberton in these proceedings, Vols. III and IV. It has also been taken by Dr. C. M. Cooke, Jr., at Malaekahana, near Kahuku, Oahu, October 31, 1915; by G. P. Wilder at sea between Maui and Kahoolawe, October, 1913; and by Mr. Greenly and others at Waikiki beach, 1914 to date. F. B. White records that, next to *H. wüllerstorffi*, it is the most abundant species, but almost confined to the North Pacific Ocean. The bulk of the Challenger specimens were from stations "from Japan to Honolulu."

Dr. Sharp (Cambridge Natural History, Insects, Pt. II) states

that when the sea is calm they skip rapidly over its surface, but disappear when it becomes agitated. The whole life-cycle may be passed through far away from land. They are strong divers and shelter themselves from rough sea by keeping well below the surface. They are gregarious.